Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

REV 15b

CHICAGO ELECTRIC **WELDING**

HEAVY DUTY
OXYGEN/ACETYLENE WELDING KIT

Visit our website at: http://www.harborfreight.com
Email our technical support at: productsupport@harborfreight.com

ITEM 92496

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

Copyright© 2003 by Harbor Freight Tools®. All rights reserved.
No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.
Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

PRODUCT SPECIFICATIONS

ITEM	DESCRIPTION
Torch Handle, Oxygen Regulator and Acetylene Regulator Construction	Polished finish, all brass construction
Cutting Nozzle Construction	Brass and Steel. Chrome Plated oxygen lever. #1 Nozzle (For cutting material up to 3/4" thickness)
Welding Nozzle and Heating Nozzle Construction	Brass base with a Copper tip. VH-W2, #2 Nozzle (For welding material 1/16"-1/8")
Welding Hose Size and Construction	15 Ft. Long x 1/4" ID (each Hose) Rubber and brass fittings
Tip Cleaner Construction	Steel files in an Anodized case
Safety Glasses Construction	Plastic and Nylon, ANSI approved #10 Shade
Flint Lighter Construction	Chrome plated steel with a Flint tip
Weight	19 Lbs.
Welding Tip Replacement	Victor Style

Victor-Style Tip

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.

2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.

3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

PERSONAL SAFETY

4. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.

5. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

6. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.

7. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.

8. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.

9. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

10. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.

11. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

12. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.

13. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.

TOOL USE AND CARE

14. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.

15. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.

16. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool’s operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.

17. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

18. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

19. **When servicing a tool, use only identical replacement parts. Follow instructions in the *“Inspection, Maintenance, And Cleaning”* section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Heavy Duty Welding Kit.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

2. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris.

3. **Prevent eye injury and burns.** Wearing and using personal safety clothing and safety devices reduce the risk for injury. Wear ANSI approved welding goggles (such as those included in this kit) featuring at least a number 10 shade lens rating. Leather leggings, fire resistant shoes or boots should be worn when using this product. Do not wear pants with cuffs, shirts with open pockets, or any clothing that can catch and hold molten metal or sparks. Keep clothing free of grease, oil, solvents, or any flammable substances. Wear dry, insulating gloves and protective clothing. Wear an approved head covering to protect the head and neck. Use aprons, cape, sleeves, shoulder covers, and bibs designed and approved for welding and cutting procedures. When welding or cutting overhead or in confined spaces, wear flame resistant ear plugs or ear muffs to keep sparks out of ears.

4. **Prevent accidental fires.** Remove any combustible material from the work area. When possible, move the work to a location well away from combustible materials. If relocation is not possible, protect the combustibles with a cover made of fire resistant material. Remove or make safe all combustible materials for a radius of 35 feet (10 meters) around the work area. Use a fire resistant material to cover or block all open doorways, windows, cracks, and other openings. Enclose the work area with portable fire resistant screens. Protect combustible walls, ceilings, floors, etc., from sparks and heat with fire resistant covers. If working on a metal wall, ceiling, etc., prevent ignition of combustibles on the other side by moving the combustibles to a safe location. If relocation of combustibles is not possible, designate someone to serve as a fire watch, equipped with a fire extinguisher, during the welding process and for at least one half hour after the welding is completed. Do not weld or cut on materials having a combustible coating or combustible internal structure, as in walls or ceilings, without an approved method for eliminating the hazard. Do not dispose of hot slag in containers holding combustible materials. Keep a fire extinguisher nearby and know how to use it. After welding or cutting, make a thorough examination for evidence of fire. Be aware that easily visible smoke or flame may not be present for some time after the fire has started. Do not weld or cut in atmospheres containing dangerously reactive or flammable gases, vapors, liquids, and dust. Provide adequate ventilation in work areas to prevent accumulation of flammable gases, vapors, and dust. Do not apply heat to a container that has held an unknown substance or a combustible material whose contents, when heated, can produce flammable or explosive vapors. Clean and purge containers before applying heat. Vent closed containers, including castings, before preheating, welding, or cutting.

5. **Avoid overexposure to fumes and gases.** Always keep your head out of the fumes. Do not breathe the fumes. Use enough ventilation or exhaust, or both, to keep fumes and gases from your breathing zone and general area. Where ventilation is questionable, have a qualified technician take an air sampling to determine the need for corrective measures. Use mechanical ventilation to improve air quality. If engineering controls are not feasible, use an approved respirator. Work in a confined area only if it is well ventilated, or while wearing an air-supplied respirator. Follow OSHA guidelines for Permissible Exposure Limits (PEL's) for various fumes and gases. Follow the American Conference of Governmental Industrial Hygienists recommendations for Threshold Limit Values (TLV's) for fumes and gases. Have a recognized specialist in Industrial Hygiene or Environmental Services check the operation and air quality and make recommendations for the specific welding or cutting situation.

Inhalation Hazard

Welding Produces TOXIC FUMES and GASSES.

Exposure to welding gasses can increase the risk of developing certain cancers, such as cancer of the larynx and lung cancer. Also, some diseases that may be linked to exposure to welding gasses or fumes are:

- **Early onset of Parkinson's Disease**
- **Damage to the reproductive organs**
- **Inflammation of the small intestine or stomach**
- **Heart Disease**
- **Ulcers**
- **Kidney damage**
- **Respiratory diseases such as emphysema, bronchitis or pneumonia**

Safety precautions, such as using natural or forced air ventilation and wearing an ANSI approved respirator, are ESSENTIAL to reduce the risk of developing the above illnesses.

6. **Always keep the Welding Hoses (D1A, or D1B) away from moving parts on the tool.** Examine the Welding Hoses for cuts, burns, or worn areas before each use. If any damaged areas are found, replace the Welding Hoses immediately.

7. **Read and understand all instructions and safety precautions as outlined in the manufacturer's manual for the material you will weld or cut.**

8. **Proper cylinder care.** Secure cylinders to a cart, wall, or post, to prevent them from falling. All cylinders should be used and stored in an upright position. Never drop or strike a cylinder. Do not use cylinders that have been dented. Cylinder caps should be used when moving or storing cylinders. Empty cylinders should be kept in specified areas and clearly marked “empty”.

9. **Never use oil or grease on any inlet connector, outlet connector, or cylinder valves.**

10. **Always use reverse-flow check valves on the torch and regulator.** This greatly reduces the possibility of mixing gases in the regulator or hose.

11. **Working pressure on the Acetylene Regulator should NEVER be set above <u>15 PSI</u>.**

12. **There must be <u>TWO</u> O-Rings (C24, C25) on the Connector (C23) end.** The absence of either O-Ring can lead to *flashback* within the Torch Handle or Cutting Attachment.

13. **For the Cutting Attachment, inspect the tapered seating surfaces on the Tip and in the Torch Head.** Have a qualified technician resurface the seat area if it has dents, burrs, or is burned. A poor seating surface may result in *backfire* or *flashback*.

14. **Backfire and flashback.** When the flame goes out with a loud “pop”, it is called a *backfire*. Backfire can be caused by (1) operating the Torch at lower pressures than required for the Tip used, (2) touching the Tip against the workpiece, (3) overheating the Tip, or (4) an obstruction in the Tip. If backfire occurs, shut off the Torch Handle Valves (oxygen first) and after remedying the cause, relight the Torch. A *flashback* is a condition that results when the flame flashes back into the Torch and burns inside with a shrill hissing or squealing noise. If flashback occurs, close the Torch Handle Valves (oxygen first), IMMEDIATELY. Flashback generally indicates a problem that should be repaired. A clogged Tip, improper functioning of the Valves, or incorrect acetylene/oxygen pressure could lead to flashback. Make sure to find the cause before relighting the Torch.

15. **⚠ WARNING! This product, when used for welding, plasma cutting, soldering, or similar applications, produces chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (California Health & Safety Code § 25249.5, et seq.)**

16. **⚠ WARNING! The brass components of this product contain lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. (California Health & Safety Code § 25249.5, et seq.)**

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts Lists on pages 15-19** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

ASSEMBLY AND OPERATING INSTRUCTIONS

For additional information regarding the parts listed in the following pages, refer to the Parts Diagrams on pages 15-19.

1. **⚠ NOTE! The following instructions are for acetylene gas use only.** Contact your gas supplier for instructions on the use of other fuel gases.

2. Make sure to secure the cylinders (as noted in the *Specific Safety Rules* section).

3. While standing to one side, "crack" each cylinder valve. "Cracking" is to quickly open and close the valve, allowing gas to escape and clearing the valve of any foreign material. **⚠ WARNING! If oil or grease is found, discontinue using cylinder and immediately contact your supplier. (See Figure D.)**

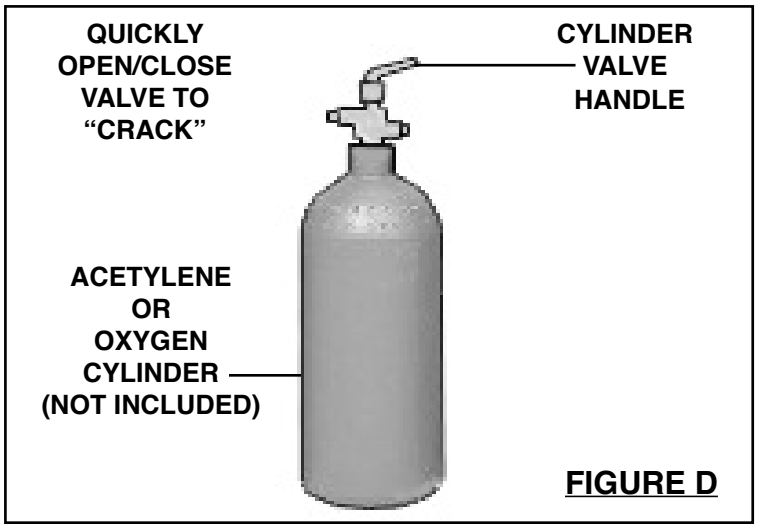


FIGURE D

4. Attach the **GREEN** Oxygen Regulator (parts A1-A20E) to the oxygen cylinder. Then, attach the **RED** Acetylene Regulator (parts 1-19) to the acetylene cylinder. Make sure they are tightened in the correct directions (normally, clockwise for oxygen and counterclockwise for acetylene.)
(See Figure E, next page.)

5. **IMPORTANT!** The Pressure Adjusting Screw (18) on the Acetylene Regulator and the Pressure Adjusting Screw (A18) on the Oxygen Regulator should be opened slightly by turning counterclockwise to relieve pressure on the Regulator diaphragms before opening the cylinder valves. If this is not done, pressure from the cylinders may damage the diaphragms and render the Regulators inoperable.

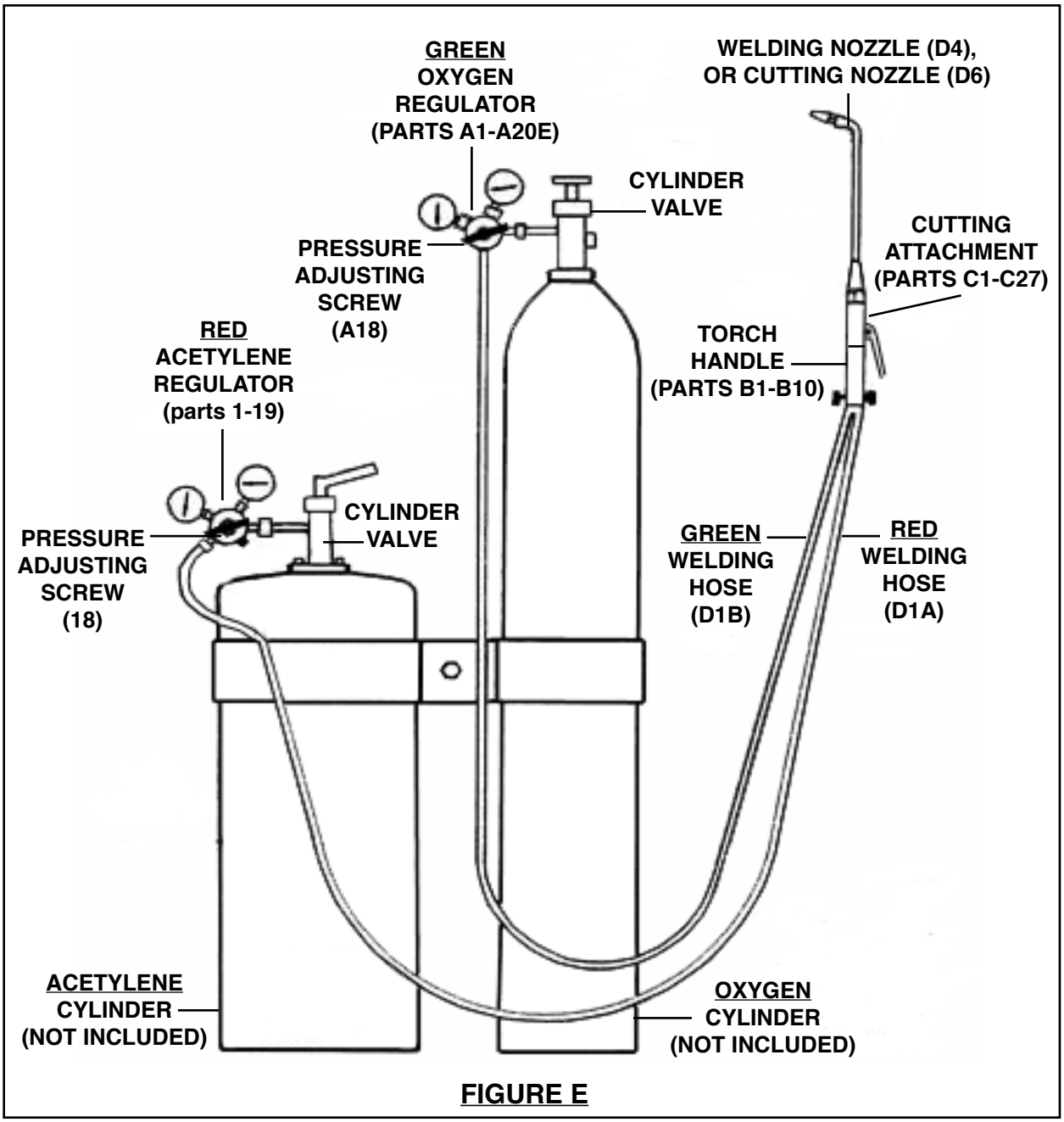


FIGURE E

6. Connect the **GREEN** and **RED** Welding Hoses (D1A, or D1B) to the proper connections on the Torch Handle (parts B1-B10).

⚠ WARNING! **If any traces of oil or grease are found, do not use. Contact**

REV

your gas supplier immediately. (See Figure F.)

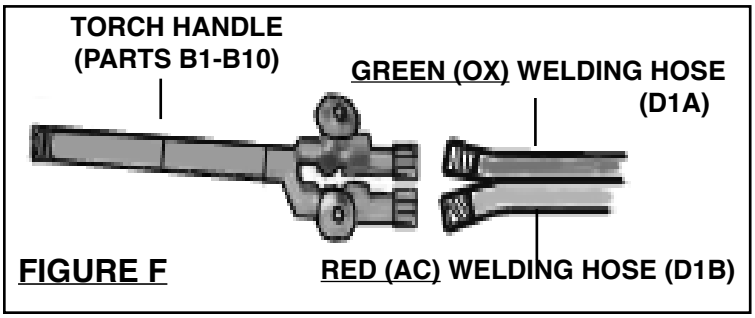


FIGURE F

7. Connect the Cutting Attachment (parts C1-C27) to the Torch Handle (parts B1-B10). Always check the Connector (C23) and Coupling Nut (C22) for damage or oil. If either are found, discontinue use and contact your gas supplier.

⚠ WARNING! Make sure the two O-Rings (C24, C25) are not damaged or missing, otherwise gases will mix inside the Torch Handle (parts B1- B10) and result in flashback or backfires. (See

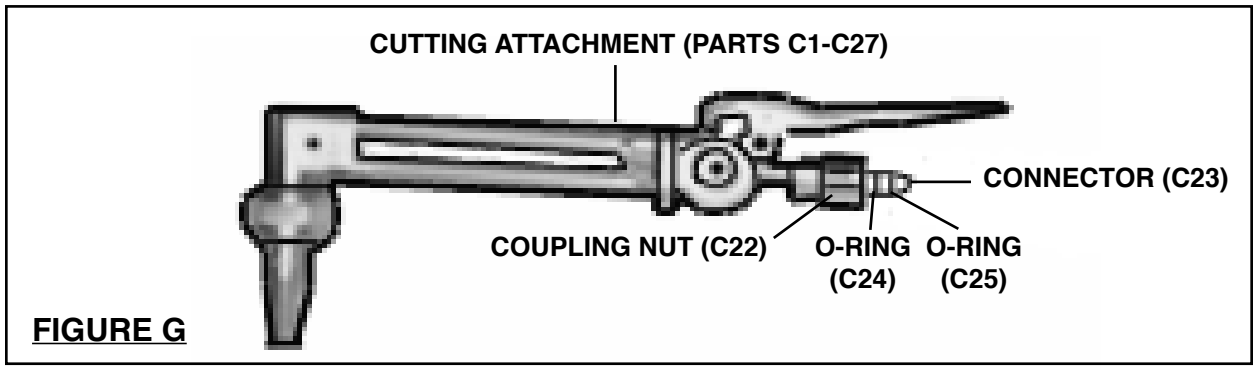


FIGURE G

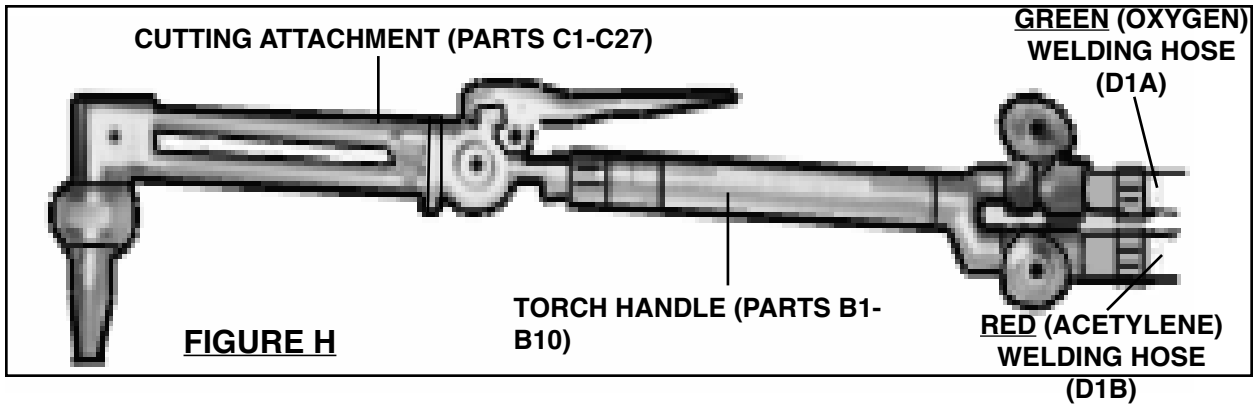


FIGURE H

8. Check connections for leaks. Adjust the Acetylene Regulator (parts 1-19) and Oxygen Regulator (parts A1-A20E) to their normal operating pressure. Use an approved leak detection solution to check for leaks at the Welding Hoses (D1A, and D1B) and cylinder valve connections. If leaks are found, tighten the nuts more

securely. If a leak still persists, discontinue use and call your gas supplier.

⚠ WARNING! NEVER set the Acetylene Regulator (parts 1-19) to a delivery pressure above 15 PSI. (See Figures I, J, and K.)

WELDING TIP CHART

Metal Thickness	Tip Size	Oxygen Pressure P.S.I.G.		Acetylene Pressure P.S.I.G.	
		Min.	Max.	Min.	Max.
1/64" - 3/64"	00	3	5	3	5
1/32" - 5/64"	0	3	5	3	5
3/64" - 3/32"	1	3	5	3	5
1/16" - 1/8"	2	3	5	3	5
1/8" - 3/16"	3	4	7	3	6
3/16" - 1/4"	4	5	10	4	7
1/4" - 1/2"	5	6	12	5	8

FIGURE I

OXY-ACETYLENE MULTI-FLAME HEATING CHART

Tip Size	Acetylene Pressure Range P.S.I.G.	Oxygen Pressure Range P.S.I.G.	Acetylene Cubic Feet Per Hour		Oxygen Cubic Feet Per Hour	
			Min.	Max.	Min.	Max.
6	4 - 6	8 - 11	14	40	15	44
8	8 - 12	10 - 18	30	80	33	88

FIGURE J

OXY-ACETYLENE CUTTING NOZZLE CHART

Metal Thickness	Nozzle Size	Oxygen Pressure P.S.I.G.		Acetylene Pressure P.S.I.G.	
		Min.	Max.	Min.	Max.
1/2"	0	30	35	3	5
3/4"	1	30	35	3	5

FIGURE K

9. To determine the proper Acetylene Regulator (parts 1-19) pressure and Oxygen Regulator (parts A1-A20E) pressure for *neutral flame adjusting,* refer to **Figures I, and K**.

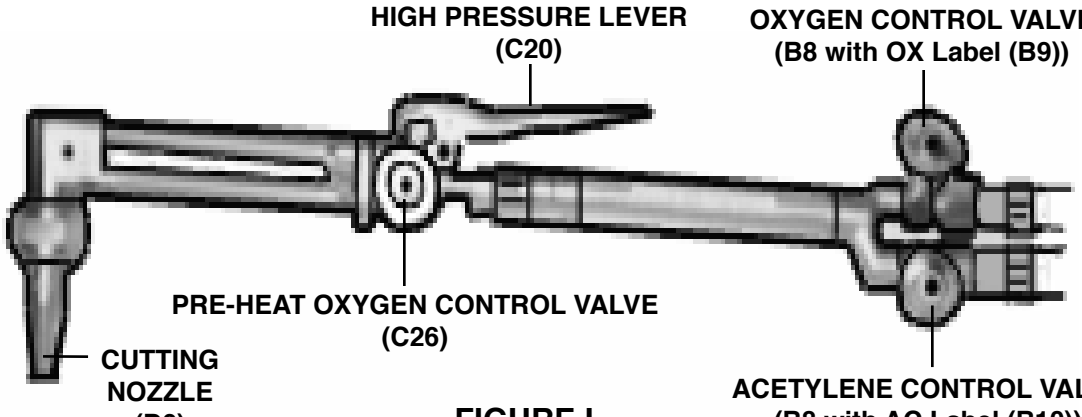


FIGURE L

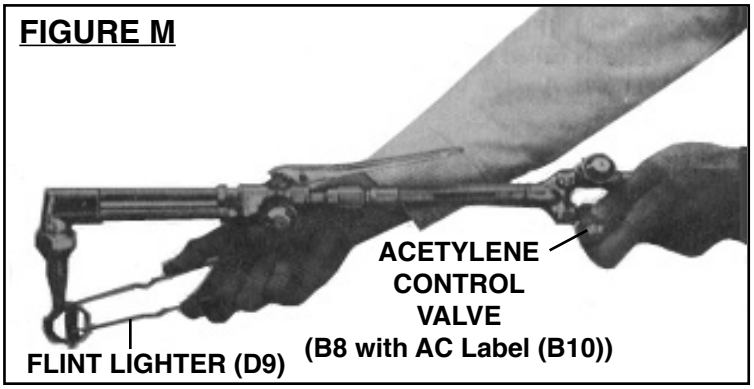
10. Depending on use, attach either a Cutting Nozzle #1 (D6), or Welding Nozzle #2 (D4) to the Cutting Attachment (parts C1-C27).
(See Figure L.)

11. Open the Oxygen Control Valve (B8 with label (B9)) on the Torch Handle. Open the Pre-Heat Oxygen Valve (C26) on the Cutting Attachment. Adjust the Oxygen Regulator (parts A1-A20E) to the desired working pressure. Then, close the Oxygen Control Valve on the Torch Handle. **(See Figures E, and L.)**

12. Open the Acetylene Control Valve (B8 with label (B10)) on the Torch Handle. Adjust the Acetylene Regulator (parts 1-19) to the desired working pressure. Then, close the Acetylene Control Valve on the Torch Handle.
(See Figures E, and L.)

13. Hold the Torch Handle (parts B1-B10) in one hand and the Flint Lighter (D9) in the other hand. **(See Figure M.)**

FIGURE M



14. Open the Acetylene Control Valve (B8 with AC Label (B10)) about 1/4 turn, and ignite the acetylene gas coming out of the Nozzle (part D4).

⚠ WARNING! Always point the Nozzle away from other people when lighting. (See Figures L, and M.)

15. Slowly open the Acetylene Control Valve (B8 with AC Label (B10)) further until the smoke subsides and the flame jumps away from the end of the Nozzle (part D4) slightly. **(See Figure M.)**

16. Slowly open the Oxygen Control Valve (B8 with OX Label (B9)) until a brilliant neutral flame is reached. (If the flame has a smooth inner cone, the flame is called *neutral.*) **(See Figure N.)**

17. **⚠ WARNING! Always use appropriate welding goggles or welding helmet when welding or cutting (at least a #10 shade lens rating).**

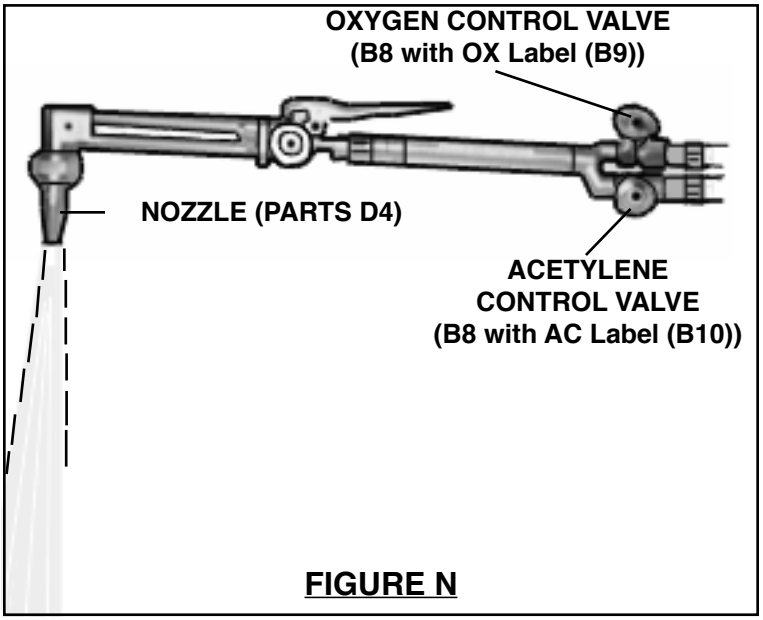


FIGURE N

18. Once the welding or cutting job is competed, turn off the Oxygen Control Valve (B8 with OX Label (B9)). Then, turn off the Acetylene Control Valve (B8 with AC Label (B10)).

NOTE: Reversal of this procedure may cause damage to the Torch Handle (parts B1-B10). (See Figure N.)

19. Shut off both cylinder valves. **(See Figure E.)**

20. Drain the gas from the Oxygen Regulator (parts A1-A20E) by opening the Oxygen Control Valve (B8 with OX Label (B9)). Complete this Step on the acetylene side.

(See Figure N.)

21. Release the pressure on the Acetylene and Oxygen Regulators by turning their Pressure Adjusting Screws (18, A18) counterclockwise. **(See Figure E.)**

INSPECTION, MAINTENANCE, AND CLEANING

1. **WARNING! Make sure the Welding Kit is cool to the touch and disconnected from its oxygen and acetylene cylinders before performing any inspection, maintenance, or cleaning procedures.**

2. **BEFORE EACH USE,** inspect the general condition of the Welding Kit. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged Welding Hoses (D1A, or D1B), and any other condition that may affect its safe operation. If a problem occurs, have the problem corrected before further use. **Do not use damaged equipment.**

3. **PERIODICALLY,** use the Tip Cleaner (D7) to clean out dirt and debris from the Nozzle (parts D4). Make sure to use the correct size Tip Cleaner for each individual Nozzle. **(See Assy. Diagram E.)**

4. **TO CLEAN,** use a clean cloth. If necessary, a mild detergent may be used. Do not immerse any part of the Welding Kit in liquid.
Do not use solvents or other flammable agents to clean the Welding Kit.

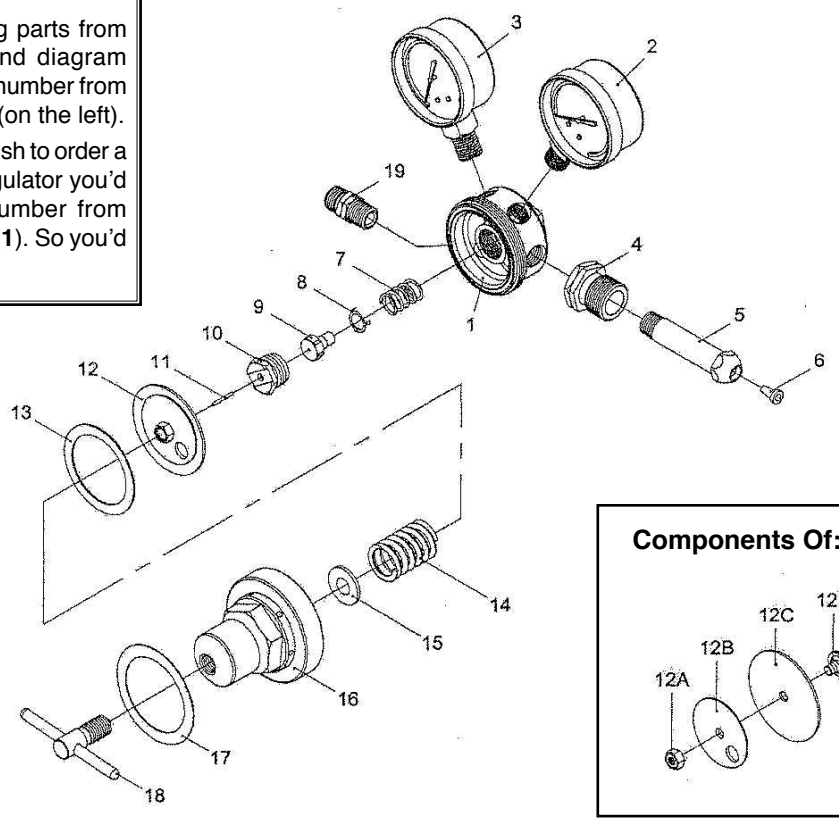
PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

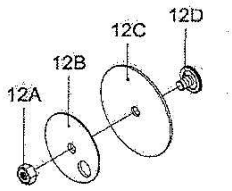
PARTS LIST AND DIAGRAM 1 - ACETYLENE REGULATOR

Note: When ordering parts from this parts list and diagram always take the number from the **No.** column (on the left).

For example: If you wish to order a Body for this regulator you'd take the part number from the **No.** column (**1**). So you'd order part **1**.



Components Of: #12



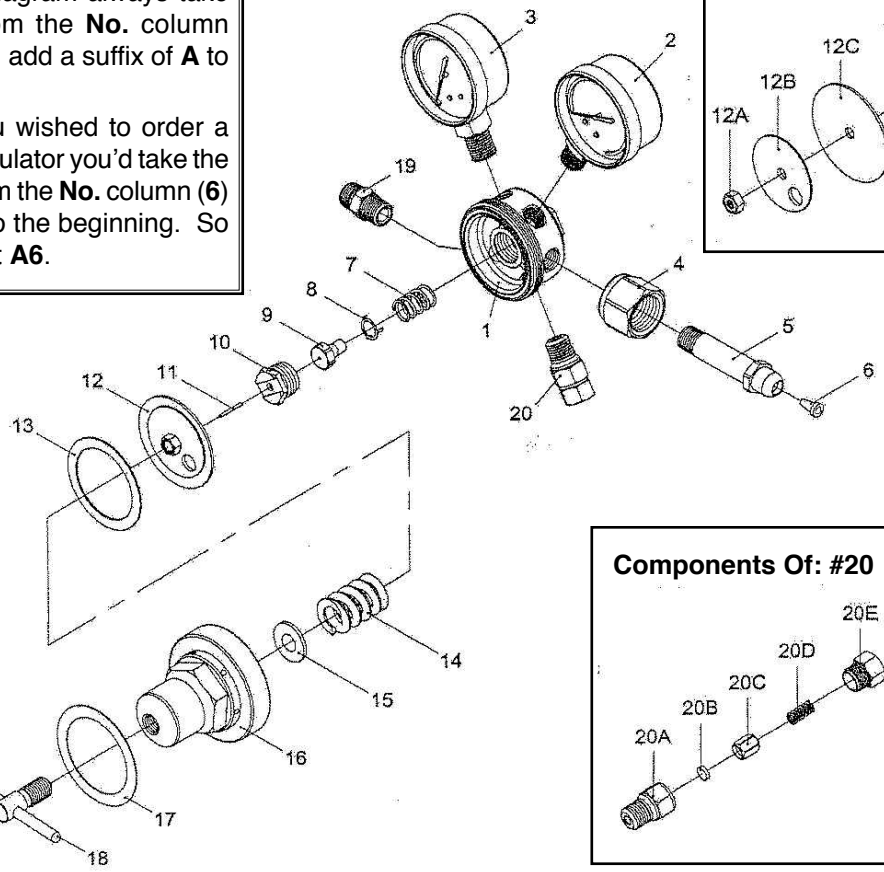
Item No.	Description	Item No.	Description
1	Body	12A	Nut
2	H.P. Gauge (2.1" x 400psi/2800kpa)	12B	Diaphragm Plate
3	L.P. Gauge (2.1" x 30psi/200kpa)	12C	Diaphragm
4	Inlet Nut (CGA 510)	12D	Centralizer
5	Inlet Spigot	13	Slip Ring
6	Filter	14	Adjusting Spring
7	Valve Spring	15	Spring Button
8	Anti-Vibrator	16	Bonnet
9	Valve	17	Label
10	Nozzle	18	Adjusting Screw "T" Bar
11	Plunger	19	Outlet Adaptor
12	Diaphragm Assembly		

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

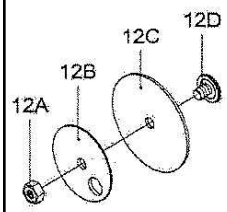
PARTS LIST AND DIAGRAM 2 - OXYGEN REGULATOR

Note: When ordering parts from this parts list and diagram always take the number from the **No.** column (on the left) and add a suffix of **A** to the beginning.

For example: If you wished to order a Filter for this regulator you'd take the part number from the **No.** column (**6**) and add an **A** to the beginning. So you'd order part **A6**.



Components Of: #12

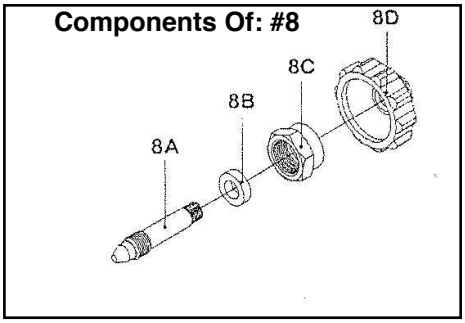


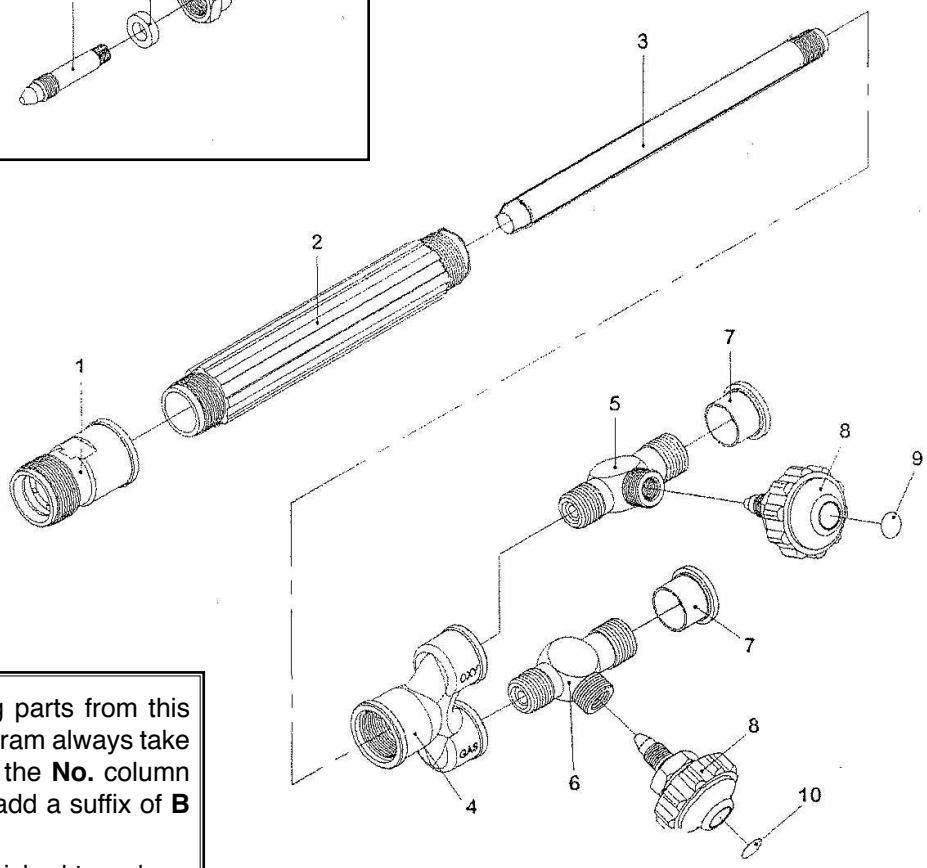
Components Of: #20

Item No.	Description	Item No.	Description
1	Body	12C	Diaphragm
2	H.P. Gauge (2.1" x 4000psi/28000kpa)	12D	Centralizer
3	L.P. Gauge (2.1" x 200psi/1400kpa)	13	Slip Ring
4	Inlet Nut (CGA 540)	14	Adjusting Spring
5	Inlet Spigot	15	Spring Button
6	Filter	16	Bonnet
7	Valve Spring	17	Label
8	Anti-Vibrator	18	Adjusting Screw "T" Bar
9	Valve	19	Outlet Adaptor
10	Nozzle	20	Safety Valve
11	Plunger	20A	Safety Body
12	Diaphragm Assembly	20B	Safety Rubber
12A	Nut	20C	Safety Seat
12B	Diaphragm Plate	20D	Safety Spring
		20E	Safety Cap

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

PARTS LIST AND DIAGRAM 3 - TORCH HANDLE





Note: When ordering parts from this parts list and diagram always take the number from the **No.** column (on the left) and add a suffix of **B** to the beginning.

For example: If you wished to order a Tail for this handle you'd take the part number from the **No.** column (**4**) and add an **B** to the beginning. So you'd order part **B4**.

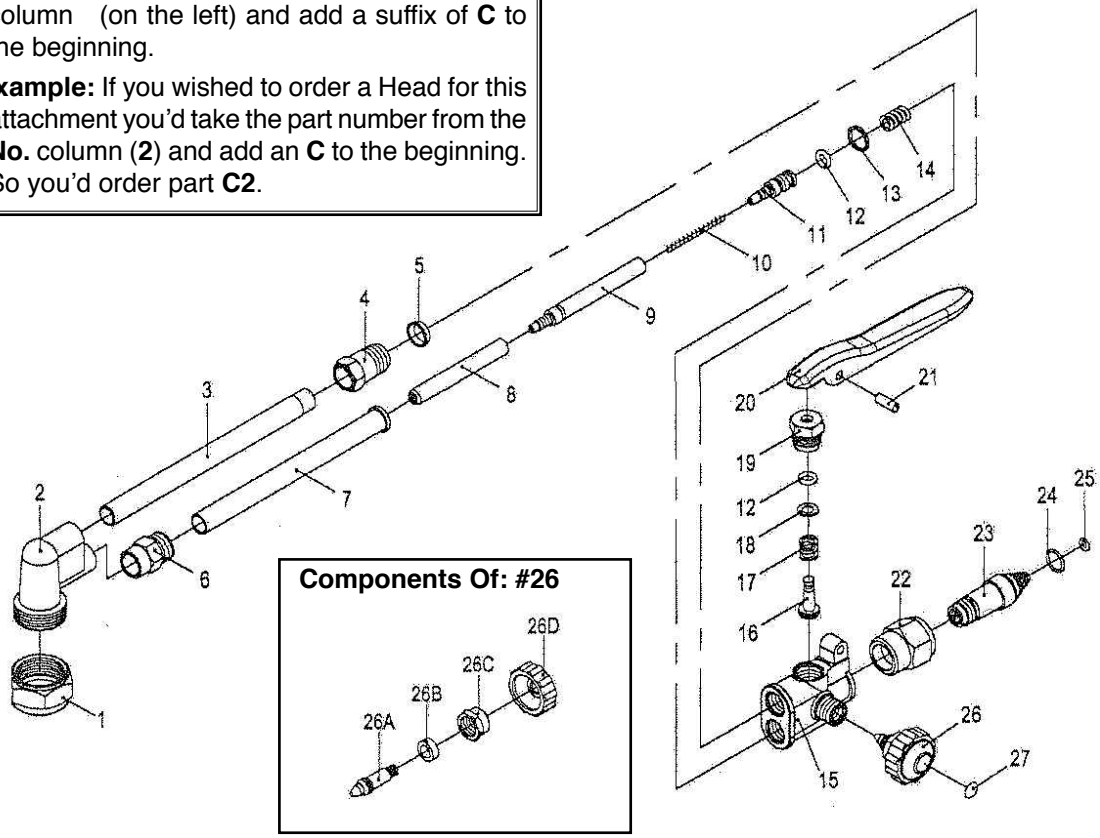
Item No	Description	Item No	Description
1	Torch Head	8	Valve Stem Assembly
2	Handle	8A	Valve
3	Inner Tube	8B	Washer
4	Tail	8C	Nut
5	Oxygen Valve Body	8D	Adjusting Knob
6	Gas Valve Body	9	Label (OX)
7	Cover	10	Label (AC)

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

PARTS LIST AND DIAGRAM 4 - CUTTING ATTACHMENT

Note: When ordering parts from this parts list and diagram always take the number from the **No.** column (on the left) and add a suffix of **C** to the beginning.

For example: If you wished to order a Head for this attachment you'd take the part number from the **No.** column (**2**) and add an **C** to the beginning. So you'd order part **C2**.



Components Of: #26

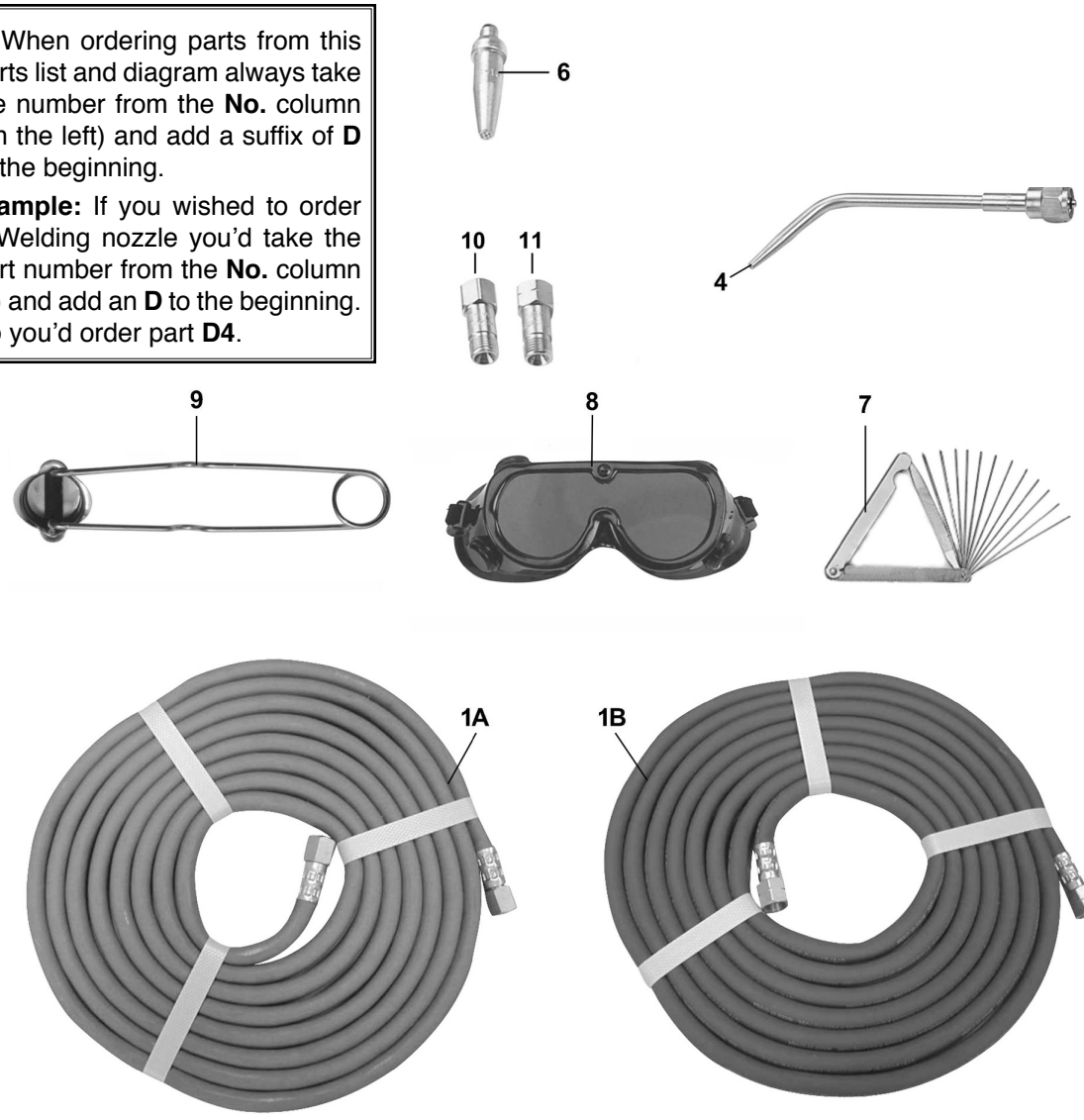
Item No	Description	Item No	Description
1	Tip Nut	17	HP Spring
2	Head	18	Washer
3	Oxygen Tube	19	Valve Cap
4	Nut	20	Lever
5	Ferrule	21	Sprial Pin
6	Nut	22	Coupling Nut
7	Fuel Tube	23	Connector
8	Inner Tube (A)	24	O-Ring (Big)
9	Inner Tube (B)	25	O-Ring (Small)
10	Spiro	26	Valve Stem Assembly
11	Inner Tube (C)	26A	Valve
12	O-Ring	26B	Washer
13	Washer (Teflon)	26C	Nut
14	Spring	26D	Adjusting Knob
15	Body	27	Label (OX)
16	Valve		

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

PARTS LIST AND DIAGRAM 5 - ACCESSORY PARTS

Note: When ordering parts from this parts list and diagram always take the number from the **No.** column (on the left) and add a suffix of **D** to the beginning.

For example: If you wished to order a Welding nozzle you'd take the part number from the **No.** column (**4**) and add an **D** to the beginning. So you'd order part **D4**.



Item No	Description	Item No	Description
1A	Green (OX) Welding Hose	8	Safety Glasses
1B	Red (AC) Welding Hose	9	Flint Lighter
4	Welding Nozzle (#2)	10	Oxygen Check Valve
6	Cutting Nozzle #1	11	Acetylene Check Valve
7	Tip Cleaner		

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

LIMITED 90 DAY WARRANTY

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • 1-888-866-5797